

# KNOWLEDGE MANAGEMENT TRAINING AT UNIVERSITIES

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**Abstract:** The paper will focus on four topics: It will initially consider knowledge management (KM) challenges and benefits. Second, it will present the approach for building KM curricula within the project TRAINMOR KNOWMORE. It will outline the project experience and the results of the needs analysis carried out. In addition, the paper will highlight the practical experience at 3 universities in Bulgaria and outline the further challenges for research and education. On this basis will be discussed KM integration in university programs – at which level, which emphasis, necessary background of the students. Finally, KM importance for T-shaped specialists will be included in the concluding remarks of the paper.

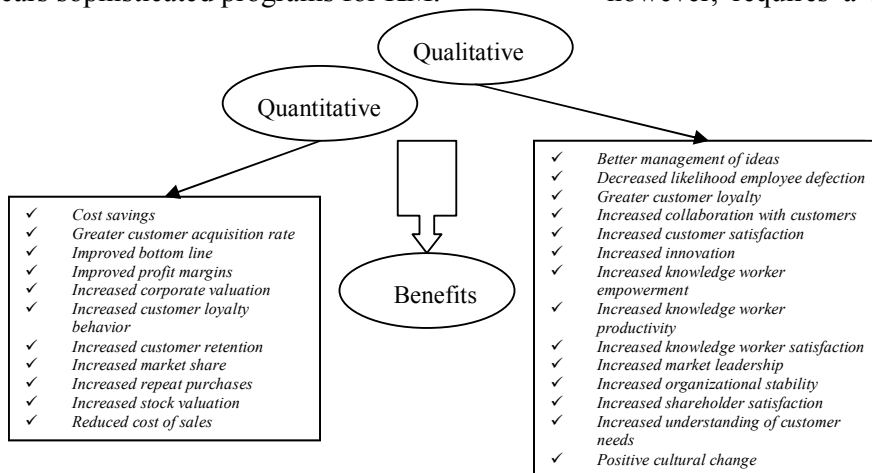
**Keywords:** knowledge management, university training

## 1. Introduction

In the last few years, the issue of mobility of highly-skilled workers was discussed at several forums. It was generally acknowledged that greater mobility of workers is correlated with productivity growth, and a certain degree of job mobility is necessary to help knowledge transfer and assist firms to innovate and seize new business opportunities. At the same time, mobility is related to loss of experienced and knowledgeable people and faces companies with great challenges. In order to grasp the benefits of the knowledge economy and to bridge the challenges of ‘brain drain’, companies started to implement in the last few years sophisticated programs for KM.

KM is gaining momentum as it is widely acknowledged that it creates several benefits for individuals, groups and companies. Bergeron [1], for example, identifies a number of quantitative and qualitative benefits for an organization as a result of applying effective knowledge management strategy (Fig. 1).

Knowledge has become an important company asset and a powerful tool for success. It is essential to make maximum use of the available knowledge, as well as to take measures to create and collect it, store and provide access to the available knowledge in the organization timely, and to all employees who need it. The proper knowledge management, however, requires a special company program



**Fig. 1** Knowledge management benefits

and a combination of skills and competencies in order to motivate employees to share their knowledge and experience, to disseminate best practices and lessons learned, as well as make use of the intellectual capital of the company.

## **2. KM training approach**

Within the Leonardo da Vinci TRAINMOR KNOWMORE project a consortium of 10 partners from Austria, Bulgaria, Cyprus, Germany, Ireland and Romania developed an intergraded training framework for Organizational Knowledge Management. The partners recognized that KM is a new interdisciplinary field, and during the initial phase of the project studied carefully the business practice and research literature, as well as carried out a survey on the training needs of small and medium enterprises in their countries [2]. These studies established the basis for designing the training curricula and the supporting Handbook. By preparing the training curricula it was acknowledged that KM training design should respond to the expectations of the learners, delivering value-added flexible training methods, easy-for-use tools and time-saving learning solutions, designed to respond to the current and specific needs of the learning individuals. The project team decided to prepare a training material with focus on practical implementation of KM technologies [3].

The TRAINMOR KNOWMORE Handbook is divided into four parts: The first one provides basic knowledge, while the second one presents the general picture of launching a KM initiative and linking it to the business strategy. The third part describes a number of tools and techniques to be implemented in KM practice. Finally, the last part provides a road map for KM success. Valuable for companies is the knowledge audit tool developed by the project team which could be used for assessing the state-of-the-art in the company or organization [3].

The project methodology included a special training workshop to be held in all partners' countries in order to gain feedback from the trainees on the training content and their additional needs. The Sofia pilot training took place in July 2007. Among the training topics raising highest interest were KM strategy and

KM practical tools, and second, KM processes and models. Less interest gained the introductory part exploring on theory the data, information and knowledge definitions, probably due to the audience specific level of knowledge. Knowledge audit was an almost unknown topic, and attracted also the attention of the trainees.

The participants proposed a number of other topics to be included in the training, e.g. knowledge planning, knowledge production, knowledge transfer, knowledge needs, KM and the innovation process, KM in the educational and individual learning processes, human resources management; techniques for mapping, problem solving, sharing, group decision making; more practical cases; extraction, systematization and utilization of implicit knowledge; knowledge protection, know-how within KM processes, KM in the organizations-knowledge producers, etc.

A general recommendation to the training was to include more practical cases and the theory to be explained on the basis of a real organization and its business processes.

## **3. Integration of Knowledge Management in university programs**

Taking into account the experience and knowledge gained within the project, a new elective course for the Masters program on e-Learning was offered at Sofia University – a course on Knowledge Management. The course was structured according to the TRAINMOR KNOWMORE approach: first, providing basic knowledge and framework conditions for KM, and second, focusing on the practical implementation of KM. The main topics in the course curriculum were as follows:

- Basic knowledge – data, information and knowledge, types of knowledge, KM processes and models, knowledge conversion and creation, etc.
- KM strategy – main factors and implementation steps
- Knowledge audit
- KM technologies – an overview
- Cultural factors and knowledge sharing
- Practical tools for KM – knowledge bases and expert systems, knowledge portal,

knowledge maps, yellow pages, communities of practice, etc.

All practical modules in the course were considered to follow the structure adopted in the TRAINMOR KNOWMORE Handbook which turned out to be suitable also for a university course as it provides on each study topic the necessary theoretical part interrelated with practical case (Table 1).

**Table 1.** Training module structure

<b>Lecture notes and theoretical part</b>  Presentations, lecture notes, video demonstrations	Introduction part
	Theoretical aspects and basic considerations
	Models and “how-to” methodologies
	Case studies and examples of implementation
<b>Exercises and application part</b>  Practical examples Modeling concrete organizational situations	Quiz and self-assessment tests
	Identification of appropriate KM tool, model or practice
	Planning KM application considering specific constraints
	Implementation phase
<b>Additional materials</b>	Self-evaluation phase
	References, links and additional materials, glossary

The course was launched in English also at the Technical University of Sofia on Masters level. The training curricula was designed in a way enabling to build upon engineering knowledge and add new competences in managing knowledge and information, human resources and change in organizations, as well as in designing KM strategy and road maps for raising the competitiveness and efficiency of the company [4]. In order to deepen their knowledge on KM practice, students were asked to prepare a short thesis describing a KM method or tool, and provide a practical case for its implementation. Many students took cases from their own practical experience which had an added-value also for the lecturers – providing them real cases from Bulgarian organizations.

During the third year since launching the KM course, it was included in the new Masters programme of Sofia University on Technology Entrepreneurship. The deep managerial

knowledge gained by the students during the first semester of the programme raised, however, a number of challenges to the lecturers. Thus, a more practice oriented approach should be adopted, while a theoretical course turned to be more suitable for the Bachelor level in order to attract students to a follow-up study related to management. It is interesting to note that the students appreciated the short thesis and even asked to discuss their deliverables at a seminar, thus raising their knowledge with the work of their colleagues.

#### 4. Conclusion

KM is a new interdisciplinary field of science, however, it is gaining importance for knowledge workers and building T-shaped specialists – with broad knowledge and understanding of several disciplines, and deep core knowledge. KM provides students understanding how to link in practice the entrepreneurial, technical and social competences, and take advantage of the available expertise in their organization. It is essential, however, to provide them more practical experience and opportunities for field work in order to gain maximum benefits from KM courses and learn how to implement the available tools in practice.

#### Acknowledgement

The authors acknowledge on the partners efforts and the results obtained during the pilot project under the EU programme Leonardo da Vinci “TRAINMOR KNOWMORE”.

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